U.S. ENVIRONMENTAL PROTECTION AGENCY

RICKWOOD ROAD/HELTON DRIVE SITE

PROPOSED CLEANUP FACT SHEET

Florence, Lauderdale County, Alabama *June 1996*

INTRODUCTION

The U.S. Environmental Protection Agency (EPA) is issuing this fact sheet to report on the results of the Engineering Evaluation/Cost Analysis (EE/CA) for contamination related to the Rickwood Road/Helton Drive Site in Florence, Lauderdale County, Alabama. EPA is now providing an opportunity for public comment on its recommended plan for cleanup. EPA, in consultation with the Alabama Department of Environmental Management (ADEM), will determine the best method for reducing risk posed by contamination at the site after public comments have been considered. *Italic* terms are defined on page 6.

EPA provides this notice for comment as part of public participation responsibilities under the Comprehensive Environmental Response, Compensation and Liability Act (*CERCLA*). The fact sheet summarizes information found in greater detail in the Site Characterization Summary, the Streamlined Risk Assessment, and the EE/CA contained in the *Administrative Record*. The Record and an *Information Repository* for this site are located at the:

Florence-Lauderdale Public Library
218 North Wood Street
Florence, Alabama 35630.

TECHNICAL ASSISTANCE GRANTS

EPA can provide Technical Assistance Grants (TAGs) for community groups to hire advisors to help them comment on EPA's actions at sites proposed for or on the ***National Priorities List (NPL)*** sites. One grant of up to $50,000 per site with a 20% match in cash or services from the local group is available.. Contact the community relations person below for more information.

A comment form in the back of the fact sheet is for your use. Send comments to the address below or contact:

Tim Woolheater, Project Manager
Extension 6248 OR
Betty Winter,Community Relations
Extension 6264
South Superfund Branch
U.S. EPA - Region 4
345 Courtland Street, NE
Atlanta, Georgia 30365
1-800-435-9234.

COMMUNITY INVOLVEMENT OPPORTUNITY

MARK YOUR CALENDAR

Public Comment Period

Dates: June 8 through July 8, 1996

Purpose: To accept comments on Rickwood Road/Helton Drive Site recommended cleanup.

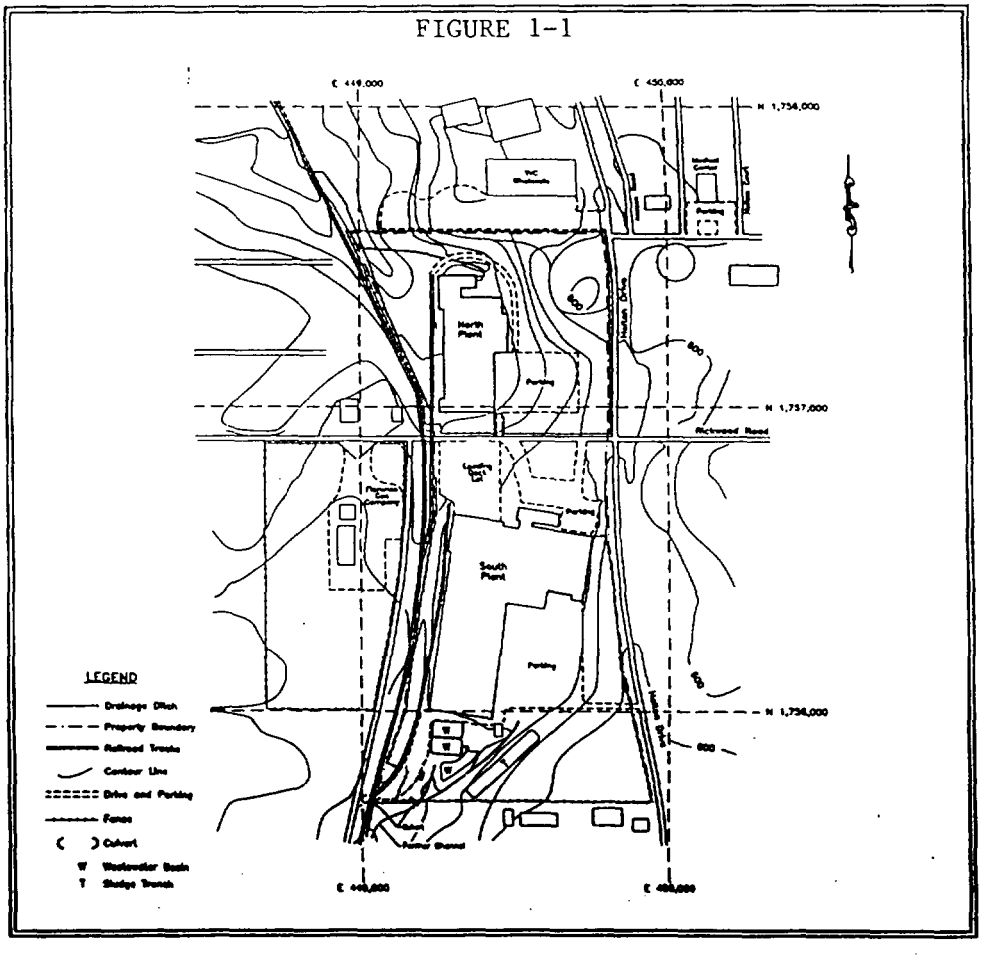
SITE BACKGROUND

The site is located at 834 Rickwood Road at the intersection with Helton Drive in Florence. (See Figure 1-1 below.) Currently Monarch Tile, Inc. operates a tile manufacturing plant on the site. The site occupies about 9.6 acres north of Rickwood Road and 18.4 acres south of Rickwood and extends along the stormwater drainage ditches leading from the facility. The facility consists of two plants (North and South) separated by Rickwood Road.

About 12 acres of the site is developed for the manufacturing operations and the remaining portions are mostly covered with grass and trees. Stormwater runoff from the site flows in two directions: from the north ditch to Cox Creek and then the Tennessee River and from the south ditch to Sweetwater Creek and then to the Tennessee River. The site is located on rolling hills with a two to ten percent slope. Soil underlying the site is generally reddish-brown silt loam at the surface and dark red clay underneath. Monarch Tile currently operates a wastewater treatment system consisting of three active wastewater basins, one inactive sludge trench (which has been recently clean closed), one closed basin, a clarifier, and a sludge dewatering system housed by the South Plant. This system accepts discharges from both the North and South Plants.

The current owner of the Rickwood Road/Helton Drive Site is the Industrial Development Board of the City of Florence. Prior to Monarch's operation which began in 1973, Stylon Corporation (formerly Stylon Southern) operated a ceramic tile manufacturing facility from the date of development in 1953 to 1973. Stylon discharged process wastewater from the North Plant through to the North ditch from 1953 through 1960. The company discharged wastewater from the South Plant

FIGURE 1-1



through a series of wastewater basins (one of which was closed in 1959) which went into the ditch draining south from the facility, paralleling the Tennessee Southern Railroad. Monarch continued the use of this system discharging wastes to the south ditch until 1976, thereafter, at the request of ADEM, obtained a permit to discharge the wastewater to the municipal sewage system.

Monarch Tile has completed several studies on site conditions over the past five years. The company reported these findings to ADEM and EPA to evaluate site for *NPL* listing. EPA proposed the site for the *NPL* in 1993.

Monarch removed about 13 cubic yards of contaminated soil from the north ditch in 1992 and placed rocks in the ditch to prevent erosion of and exposure to the soils contaminated with lead. The company entered into an agreement with EPA in 1994 to do additional cleanup. The agreement required a study of contamination and associated risk (Site Characterization Study and Streamlined Risk Assessment). The company's consultant then prepared the Engineering Evaluation and Cost Analysis (EE/CA) to determine the best way to reduce risk posed by remaining contamination.

SITE CHARACTERIZATION/STREAMLINED RISK EVALUATION

The Site Characterization Study identified the source of contamination and possible impact on surface and ground water, surface and sub-surface soils, sediments and air. Possible sources included wastewater discharges to two drainage ditches, wastewater basins, a sludge trench, a wastewater process line, a settling basin, and both on- and off-site fill areas.

Study results showed that the following areas have been affected by contamination related to past disposal practices: north and south ditch soils and sediments; surface soils in an off-site fill area north of the North Plant; surface soils in a single process area in the North Plant and in South Plant process areas.

Contaminants of potential concern in these areas are heavy metals, primarily lead, barium, and zinc. The study also showed that these contaminants have only a limited potential for migration to groundwater and that currently the groundwater has not been affected. The north ditch surface water samples showed slightly elevated lead levels immediately upstream of the confluence with Cox Creek. This may have been the result of turbid samples or increased local development due to the fact that upstream samples met safe drinking water samples.

Streamlined Risk Evaluation Conclusions

The purpose of this assessment was to determine the need for further cleanup to reduce potential risk to human health and the environment. The study was divided into human health and ecological risk evaluations.

Human Health Risk

The Streamlined Risk Assessment considered current and possible future use to determine the health threat posed by contamination at the site. The assessment evaluated locations (contaminated media), receptors (people), and exposure pathways for current site use. Possible exposure pathways include dermal (through the skin), ingestion (eating, drinking), and inhalation (breathing). The individuals considered as potential receptor were on-site workers, visitors, trespassers, and off-site workers and trespassers.

For possible future residents on the site, the risk assessment considered exposure from surface soil, drainage ditch sediments, and sludge. All possible exposure pathways (dermal contact, ingestion, and inhaling fugitive dust) would be of concern if the site were to become residential in the future.

The Streamlined Risk Evaluation evaluated possible cancer and non-cancer effects of all contaminants of potential concern. Barium and zinc levels were found to be below those of concern and would not present a threat with the current industrial use. EPA is proposing a

cleanup level for lead of 1,300 ***ppm*** for surface soils and the drainage ditches and 6400 ppm for the wastewater basins to insure current and future protection. Areas which contain levels of lead above the cleanup levels would require cleanup under this proposed action.

Ecological Risk Assessment

The area around the site is not likely to be a habitat for endangered species or significant aquatic (water) habitats. The pathway of greatest concern was the potential impact on Cox Creek. Sampling indicated that Cox Creek has not been impacted by site contamination, and the ecological assessment shows that the levels protective of human health will also protect plant and animal life supported by Cox Creek. Though the drainage ditches were shown to be of little concern, potential source areas were found in each ditch. These areas are the result of former drainage paths being diverted to a new location by filling in the old path. The old pathways continue to have material buried beneath the fill and erosion potential is high for each area. In order to prevent this material from being released to the environment, EPA is proposing that this material be removed as part of this action.

DESCRIPTION OF NON-TIME CRITICAL REMOVAL ALTERNATIVES

The cleanup goal is to reduce threats to people or the environment posed by metal contamination resulting from past disposal practices on the Rickwood Road Site. A summary of the alternatives is presented in Table 1. More details on these options can be found in the EE/CA.

TABLE 1 Cleanup Alternatives Summary

No.	Description	Cost
1	Addition of absorbent material to contaminated materials with clay cap on top	$575,021
2	*In-situ* (in place) stabilization/solidification (adding cement and/or other stabilizers to contaminated material) to meet ***Resource Conservation and Recovery Act (RCRA)*** Land-Disposal Restrictions (LDRs) with cap over solidified materials	$597,176
3	Excavation, stabilization/solidification to Meet RCRA Land-Disposal Restrictions (LDR), backfill with stabilized materials, and clay cap over the materials	$677,966
4	Excavation, stabilization/solidification to meet RCRA LDRs and disposal at approved facility	$798,188
5	No Action -- base for comparing other actions	$ -0-
6	Excavation, use soil washing, backfill, cover with clay cap	$1,255,400
7	*In-situ* stabilization/solidification before digging up for disposal at approved facility	$763,680

COMPARISON OF ALTERNATIVES

Criteria EPA used to evaluate the alternatives for reducing risk in the areas of concern at the Rickwood Road Site are shown in the insert on the next page.

A summary of the comparison follows. More detail can be found in the EE/CA. EPA will determine State and Community acceptance after the public comment period.

CRITERIA FOR EVALUATING CLEANUP ALTERNATIVES

In selecting a cleanup remedy, EPA uses nine criteria to evaluate appropriate options. The first two criteria are threshold and must be met for an option to be considered further. The next five are balancing criteria for weighing the merits of alternatives meeting the threshold criteria. The last two are used to modify EPA's preferred option based on additional input.

- Overall Protection of Human Health and the Environment -- degree of risk reduction or control.
- Compliance with Applicable or Relevant and Appropriate Requirements (ARARs) -- how well remedy meets Federal/State standards and requirements.
- Implementability -- remedy's technical feasibility, availability of services, and administrative ease.
- Short-Term Effectiveness -- Length of time to achieve protection and potential impact of remedy itself.
- Long-Term Effectiveness and Performance -- how long cleanup protect people and environment .
- Reduction of Toxicity, Mobility, or Volume Through Treatment -- how well remedy lessens harmful nature, movement, or amount of contamination.
- Cost -- Weighing benefits of a remedy against cost of implementing and maintaining it.
- State Acceptance -- consideration of state's opinion of the preferred alternative(s).
- Community Acceptance -- consideration of public comments on proposed cleanup action.

TABLE 2
COMPARISON OF ALTERNATIVES

The table below presents a comparison of the alternatives and how they individually meet the criteria presented in the insert on the previous page. The table is reflective of the detailed analysis presented in the EE/CA in Table 7-5. The table presented average scores for each of the criteria while this table relates EPA's opinion of whether the average was high, medium, low, or did not meet the criteria (DMC).

Criteria	Alternative 1 Absorbent Material and Clay Cap	Alternative 2 *In Situ* S/S and Clay Cap	Alternative 3 Excavation S/S, Backfill Clay Cap	Alternative 4 Excavation S/S and Off-Site Disposal	Alt. 5 No Action	Alternative 6 Excavation Soil Washing Fill/Cap	Alternative 7 *In situ* S/S Disposal at App. Facil.
Protection	low	high	high	high	DMC*	med	high
ARARs	low	high	med	high	high	med	high
Long-term Effective-ness	low	med	med	high	low	med	high
Short-term effective-ness	high	high	high	high	high	med	high
Reduction of toxicity, mobility, or volume	low	high	high	high	DMC*	med	high
Imple-menta-bility	med	high	high	high	high	med	high
Cost	med	med	med	med	high	low	med

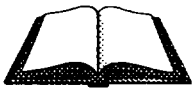
* DMC- does not meet the criteria.

EPA is seeking community input through the comment period and will seek state concurrence on its selected cleanup alternative. EPA will include a response to comments received in its cleanup decision document after the public comment period. EPA will make that document available to the public.

U.S. EPA'S RECOMMENDED CLEANUP ALTERNATIVE

Based on the comparison of alternatives, EPA recommends that Alternative 7, in-situ stabilization of contaminated material with off-site disposal, be implemented as its preferred action for the Rickwood Road Site. In the EE/CA, ex-situ stabilization (Alternative 4) was shown to be a slightly more effective alternative, however, in-situ stabilization was also shown to be effective and merits implementation due to the estimated cost being lower for in-situ treatment. The technical difference between the two is that the ex-situ treatment provides a more through mixing of the waste and the stabilizing material. However, this difference is not considered significant due to the limited material to be treated and the fact that the final disposal will be in a permitted waste disposal facility. If bids for the cleanup activities are comparable for both treatment options then, as a contingency remedy, EPA would require the implementation of the ex-situ treatment.

The cleanup would also include creating Corrective Action Management Units (CAMUs) for treating the contaminated materials as shown on Figures 1-2 and 1-3 shown on page 8. These units will enable movement of contaminated materials from one area to another for efficient cleanup. The cleanup would achieve substantial and permanent risk reduction by using stabilization/solidification to immobilize contamination in the areas of concern before disposing treated materials off site in an approved disposal facility. The estimated cost for this action would be approximately $760,000. As shown in Table 2 above, this alternative and the contingency would fully meet all remedy evaluation criteria.



GLOSSARY

Administrative Record: Basis for EPA's selection of Superfund cleanup remedies, usually placed in the information repository near the site.

ARARs: Federal/State applicable or appropriate requirements to be met.

CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act, or Superfund, passed in 1980 to take care of hazardous waste sites.

Groundwater: Water beneath earth's surface filling pores between sand, soil, or gravel used as water source.

Information Repository: Public file on Superfund cleanups located near sites.

National Priorities List (NPL): EPA's list of hazardous waste sites eligible for attention under Superfund.

Parts Per Million (ppm) or Milligrams per kilogram (mg/kg): Units commonly used to express levels of contaminants.

Resource Conservation and Recovery Act (RCRA): Federal law for handling hazardous waste with requirements for treating, transporting, storing, and disposing.

CORRECTIVE ACTION MANAGEMENT UNIT (CAMU) LOCATIONS

13 9 0008

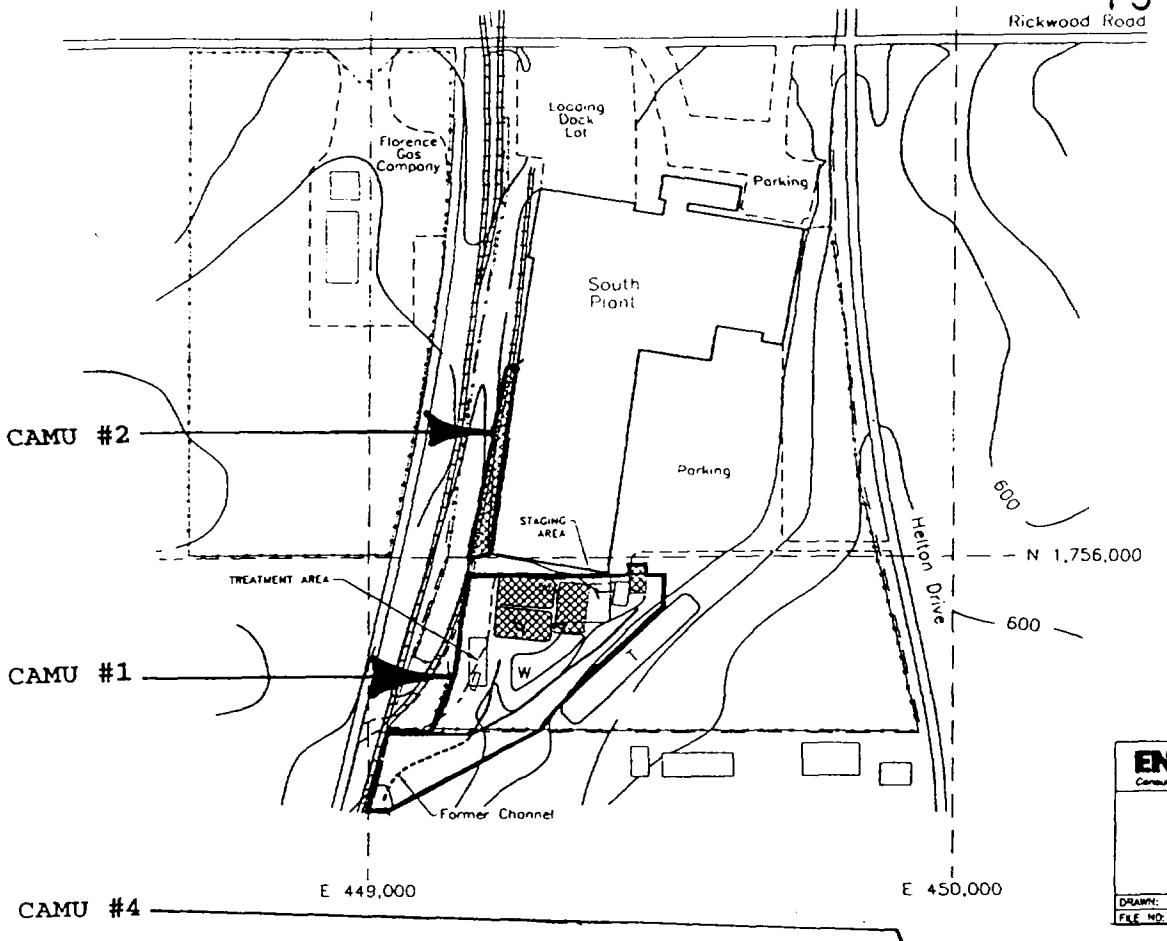


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FIGURE 1-2
CAMU LOCATIONS
Monarch Tile, Inc.
Florence, Alabama

DRAWN: K. Monger	DATE: March 13, 1996	REV: 0
FILE NO: MN006303	CHECKED: R. Moore	PROJECT NO: 4709-006

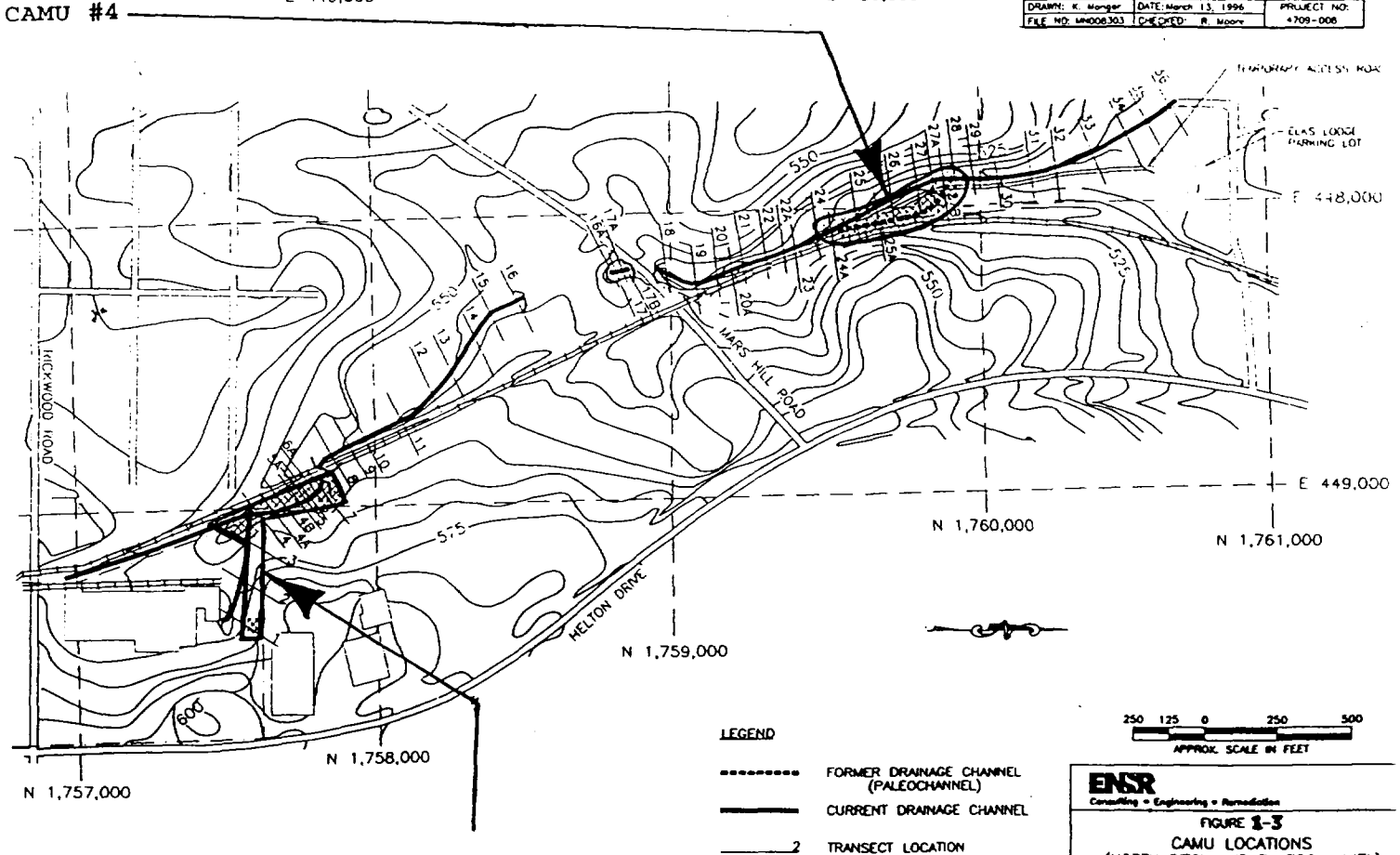

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FIGURE 1-3
CAMU LOCATIONS
(NORTH DITCH AND PALEOCHANNEL)
Monarch Tile, Inc.
Florence, Alabama

DRAWN: K. Monger	DATE: May 28, 1996	REV:
FILE NO: MN006301	CHECKED: R. Moore	PROJECT NO: 4709-006

MAILING LIST ADDITIONS/CORRECTIONS

If you would like your name and address placed on the mailing list for the Rickwood Road/Helton Drive Site, please complete this form and return to Betty Winter, EPA, 345 Courtland Street, NE, Atlanta, GA 30365.

NAME: _____

ADDRESS: _____

_____

TELEPHONE: _____

AFFILIATION (If any): _____

RICKWOOD/HELTON SITE
PUBLIC COMMENT SHEET

USE THIS SPACE TO WRITE YOUR COMMENTS

Your input on the EE/CA for the Rickwood Road/Helton Drive Superfund Site is important in helping EPA select the best non-time-critical removal action for the site. You may use the space below to write your comments, then fold, and mail. Additional comments may be included with this form.

Name_____

Address_____

_____

Phone #_____

RICKWOOD RD / HELTON DR SITE

PUBLIC COMMENT SHEET

Fold on dashed lines, staple, stamp and mail
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Betty Winter, Community Relations
South Superfund Branch/Waste Division
U. S. EPA, Region 4
345 Courtland Street, NE
Atlanta, GA 30365

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Environmental Protection
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Betty Winter
Community Relations Coordinator

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